



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,270	05/27/2008	Jean Beaucage	09680.0363USWO	2259
23552	7590	09/01/2009	EXAMINER	
MERCHANT & GOULD PC			ZAIDI, IQBAL	
P.O. BOX 2903			ART UNIT	PAPER NUMBER
MINNEAPOLIS, MN 55402-0903			2416	
			MAIL DATE	DELIVERY MODE
			09/01/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,270	Applicant(s) BEAUCAGE, JEAN	
	Examiner IQBAL ZAIDI	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The instant application having application No 10/585270 filed on 05/27/2008 is presented for examination by the examiner.

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R 1.63.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 08/25/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2416

5. **Claims 1-9** are rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996)

Regarding **Claim 1**, Gerszberg discloses a ruggedized analog front-end for interconnecting a network communicative device to a two-conductor based network (*column 4, See Fig 1A, communication as well as the network architecture employing a hybrid fiber, twisted-pair architecture is shown*), comprising: input and output leads for connection to the network communicative device(*column 29, In each of the individual taps (leads)the cable system has power in the which is distributed through the center of the coaxial cable whereas the signal is distributed along the outer edge of the center coaxial cable in a skin effect since the high frequencies are distributed towards the outer edge of the cable. In passing the power through each of the taps, the cable is actually severed at each tap and a circuit board is interconnected between the input and output of the tap allowing for the power to be filtered as well as isolation the high frequency cable system into the house*); network leads for connection to the two-conductor based network(*column 1, a local house or feeder to a house network architecture using a hybrid optical fiber and twisted pair and/or coaxial cable connected multiplexing device*); a common mode filter circuit coupled between the first terminal set of the coupling circuit and the network leads(*column 10, In still further embodiments, the ISDDRG 22 may be compatible with multicast broadcast services where multi cast information is broadcast by a central location and/or other server on one of the networks connected to*

Art Unit: 2416

the FMP/C-FMP 32, e.g., an ATM-switched network. The ISD/IRG 22 may download the multicast information via the FMPIC-FMP 32 to any of the devices connected to the ISDIIRG 22. The ISDDRG 22 and/or CPE 10 devices may data over cable service interface specification (DOCSIS), selectively filter the information in accordance with a specific customer user's preferences), and a power supply circuit for operative power supply of electronic components of the analog front-end (column 26, Controller 402 is powered by power supply 404 which is preferably a transformer(power supply circuit) for providing the voltages necessary to operate controller 402 from household current).

Gerszberg discloses all aspects of the claimed invention, except a coupling circuit having first, second and third terminal sets, a first coupling channel between the first and second terminal sets, and a second coupling channel between the first and third terminal sets, the first and second coupling channels providing isolation, impedance matching and energy transfer between corresponding ones of the terminal sets, an amplifier having an input connected to the input leads, and an output connected to the second terminal set of the coupling circuit, an attenuator having an input connected to the third terminal set of the coupling circuit, and an output connected to the output leads.

Papadopoulos is the same field of invention teaches a coupling circuit having first, second and third terminal sets, a first coupling channel between the first and second terminal sets, and a second coupling channel between the first and third terminal sets, the first and second coupling channels providing isolation, impedance matching and energy transfer between corresponding ones of the terminal sets(column

Art Unit: 2416

2, An isolation circuit(coupling circuit) is provided coupled to both the first and second output terminal sets for preventing shunt loading of the first and second pairs of wires and for providing electrical impedance characteristics to the first and second pairs of wires representative of an open circuit); an amplifier having an input connected to the input leads, and an output connected to the second terminal set of the coupling circuit(column 2, An amplifier is coupled to the second connector and to the isolation circuit, the amplifier being powered by the output voltage); an attenuator having an input connected to the third terminal set of the coupling circuit, and an output connected to the output leads(See Fig 1, column 3, See FIG. 1, a telephone headset interface circuit 10 includes a transmit and receive amplifier 12, adapted for coupling to a headset 14, in order to adjust the amplitude of signals(attenuator) coupled between the headset 14 and telephone lines).

Gerszberg and Papadopoulos are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg to include the teaching of Papadopoulos because it is providing LCR circuits which are coupled to corresponding telephone wires substantially identical electrical impedance characteristics are thereby introduced to each wire, more particularly both AC and DC impedance characteristics introduced to each of telephone wires with this arrangement, degradation of the performance is minimized.

Regarding **Claim 2**, Gerszberg discloses all aspects of the claimed invention, except *the coupling circuit comprises a transformer having a primary coil and first and second secondary coils, the primary coil being connected to the first terminal set, the first and second secondary coils being connected respectively to the second and third terminal sets, the transformer providing the first and second coupling channels.*

Papadopoulos is the same field of invention teaches the coupling circuit comprises a transformer having a primary coil and first and second secondary coils, the primary coil being connected to the first terminal set, the first and second secondary coils being connected respectively to the second and third terminal sets, the transformer providing the first and second coupling channels(*column 9, transformer T2 having a primary winding T2a with a first terminal capacitively coupled to an output terminal of a timer or pulse generator 70 through a 0.1 microfarad capacitor C10 and a second terminal coupled to the output terminal 64c of regulator 64. The secondary winding T2b of transformer T2 has a first terminal coupled and a providing coupled to a capacitor C16).*

Regarding **Claim 3**, Gerszberg discloses the ruggedized analog front-end according to claim 1, wherein the first and second coupling channels comprise opto-isolated amplifiers (*column 7, see Fig 1D, a number of to a node 61 of a hybrid fiber coaxial cable plant typically digital devices multi-dropped on a single twisted with coaxial cable in and out of the node and where active pair (to FMP) or coaxial cable (to C-FMP) connection, amplifier or passive devices are provided for providing 25 Similarly, analog*

Art Unit: 2416

phones and other analog devices may be service to downstream subscribers).

Regarding **Claim 4**, Gerszberg discloses the ruggedized analog front-end according to claim 1, wherein the amplifier comprises a differential amplifier for amplifying a voltage difference between two input signals received by the input leads *(column 33, to maintain the telephone call either in the down mode or the if the power returns, so it requires to use just a single amplifier for handling those services).*

Regarding **Claim 5**, Gerszberg discloses the ruggedized analog front-end according to claim 1, further comprising a protection circuit coupled between the output of the amplifier and the second terminal set of the coupling circuit *(column 17, Interconnected to the ISD/IRG be a protector block 26 (for lightning and overvoltage protection) which is used for impedance matching).*

Regarding **Claim 6**, Gerszberg discloses the ruggedized analog front-end according to claim 5, wherein the protection circuit comprises a circuit arrangement having diodes and capacitors *(column 17, Interconnected to the ISD/IRG be a protector block 26 (for lightning and overvoltage protection) which is used for impedance matching using capacitors).*

Regarding **Claim 7**, Gerszberg discloses all aspects of the claimed invention, except a protection circuit coupled between the input of the attenuator and the third terminal set of the coupling circuit.

Papadopoulos is the same field of invention teaches a protection circuit coupled between the input of the attenuator and the third terminal set of the coupling circuit(See *Fig 1, column 3, See FIG. 1, a telephone headset interface circuit 10(protection circuit) includes a transmit and receive amplifier 12, adapted for coupling to a headset 14, in order to adjust the amplitude of signals(attenuator) coupled between the headset 14 and telephone lines).*

Regarding **Claim 8**, Gerszberg discloses the ruggedized analog front-end according to claim 7, wherein the protection circuit comprises a circuit arrangement having diodes and capacitors(*column 17, Interconnected to the ISD/IRG be a protector block 26 (for lightning and overvoltage protection) which is used for impedance matching using capacitors).*

Regarding **Claim 9**, Gerszberg discloses The ruggedized analog front-end according to claim 1, further comprising a band pass filter coupled between the first terminal set of the coupling circuit and the common mode filter circuit(*column 19, The ISDIIRG is unlike conventional system that uses bandpass filters or splitter to separate the terminals).*

Art Unit: 2416

6. **Claims 10** is rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996), furthermore Laster et al. (US 3603744, Sep 7, 1971)

Regarding **Claim 10**, Gerszberg discloses all aspects of the claimed invention, except *the coupling circuit comprises a transformer having a primary coil and first and second secondary coils, the primary coil being connected to the first terminal set, the first and second secondary coils being connected respectively to the second and third terminal sets, the transformer providing the first and second coupling channels, and the band pass filter and the transformer are combined together into a chip powered by the power supply circuit.*

Papadopoulos is the same field of invention teaches the coupling circuit comprises a transformer having a primary coil and first and second secondary coils, the primary coil being connected to the first terminal set, the first and second secondary coils being connected respectively to the second and third terminal sets, the transformer providing the first and second coupling channels(*column 9, transformer T2 having a primary winding T2a with a first terminal capacitively coupled to an output terminal of a timer or pulse generator 70 through a 0.1 microfarad capacitor C10 and a second terminal coupled to the output terminal 64c of regulator 64. The secondary winding T2b of transformer T2 has a first terminal coupled and a providing coupled to a capacitor C16).*

Gerszberg and Papadopoulos are analogous art because they are from the same

Art Unit: 2416

field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg to include the teaching of Papadopoulos because it is providing LCR circuits which are coupled to corresponding telephone wires substantially identical electrical impedance characteristics are thereby introduced to each wire, more particularly both AC and DC impedance characteristics introduced to each of telephone wires with this arrangement, degradation of the performance is minimized.

Furthermore, Laster is the same field of invention teaches and the band pass filter and the transformer are combined together into a chip powered by the power supply circuit (*column 3, Both the transmitter and receiver sections 26 and 27 of each are connected to a hybrid transformer 30 which couples the channel units to central office switchi1:gand signaling equipment. The transmitter section 26 which can be set to a predetermined output level includes a compressor 31, a modulator 32, a carrier-frequency amplifier 33 and a band-pass filter 34, all connected in series to a load 35 extending from an end tap of the secondary winding 36 of the hybrid).*

The combination of Papadopoulos and Laster are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos to include the teaching of Laster because it is providing an electronic distribution system that can be manufactured, installed, and maintained at relatively low cost compared with the cost of

Art Unit: 2416

installing additional conductor pairs of conventional telephone systems at distances preferably greater than three miles.

7. **Claims 11** is rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996), furthermore Wasaki et al. (US 20030095036, May 22, 2003)

Regarding **Claim 11**, Gerszberg discloses all aspects of the claimed invention, except *the common mode filter circuit comprises a low frequency common mode filter connected to a high frequency common mode filter.*

Furthermore, Wasaki is the same field of invention teaches the common mode filter circuit comprises a low frequency common mode filter connected to a high frequency common mode filter(*page 2, The blocking filter include a circuit that is provided between the plurality of conductive lines of the indoor power line, the circuit being made up of an impedance element and a high-pass filter element connected in series to each other, the impedance element setting the impedance of the indoor power line to a predetermined value, and the high-pass filter element interrupting a frequency component of electric power carried by the indoor power line. On the other hand, the blocking filter may further include a shunt circuit for reducing normal mode signals, the shunt circuit being provided between the plurality of conductive lines at a position closer to the outdoor power line than the normal-mode-signal-reducing impedance elements*

Art Unit: 2416

are. On the other hand, the blocking filter may further include a common mode filter circuit for reducing common mode noise).

The combination of Papadopoulos and Wasaki are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos to include the teaching of Wasaki because it is providing a power line communication system that makes it possible to perform communication between a plurality of communication devices by using an indoor power line, to avoid communication failures attributable to equipment connected to the indoor power line, and to improve the state of the indoor power line to make it suitable for communication.

8. **Claims 12-13** are rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996), furthermore Wasaki et al. (US 20030095036, May 22, 2003)

Regarding **Claim 12**, Gerszberg discloses all aspects of the claimed invention, except *a protection circuit coupled between the common mode filter circuit and the network leads.*

Furthermore, Wasaki is the same field of invention teaches a protection circuit coupled between the common mode filter circuit and the network leads(*page 2, the impedance matching circuit (protection circuit) include a matching impedance element*

Art Unit: 2416

provided between the two power supply lines, for setting the impedance of the indoor power line to a predetermined value and a high-pass filter element provided between the two power supply lines, being connected in series to the matching impedance element, for interrupting a frequency component of electric power carried by the indoor power line; and a variation-suppressing impedance element provided on at least either one of the power supply lines at a position closer to the electrical equipment).

The combination of Papadopoulos and Wasaki are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos to include the teaching of Wasaki because it is providing a power line communication system that makes it possible to perform communication between a plurality of communication devices by using an indoor power line, to avoid communication failures attributable to equipment connected to the indoor power line, and to improve the state of the indoor power line to make it suitable for communication.

Regarding **Claim 13**, Gerszberg discloses all aspects of the claimed invention, except *the protection circuit comprises a circuit arrangement having zenner diodes for protection in differential mode of signals sent to and received from the two-conductor based network.*

Papadopoulos is the same field of invention teaches the protection circuit comprises a circuit arrangement having zenner diodes for protection in differential mode

Art Unit: 2416

of signals sent to and received from the two-conductor based network (*column 6, Diodes D1, D2 are coupled in series with a respective one of transistors Q1, Q2, as shown, in order to provide isolation*).

Claims 14, and 16-21 and 23-24 are rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996), furthermore Wasaki et al. (US 20030095036, May 22, 2003)

Regarding **Claim 14**, Gerszberg discloses a network system operable in a harsh environment, comprising: a pair of conductors forming at least a part of a two-conductor based network(*column 2, the twisted-pair lines, coaxial cable, hybrid fiber facilities with either twisted pair or coaxial cable connecting each of the individual users to the local cable television or toll telephone or hybrid network*); at least one network communicative device(*column 1, using a hybrid optical fiber and twisted pair and/or coaxial cable connected multiplexing device*);, the at least one access device having a ruggedized analog front-end as defined in claim 1(*column 4, See Fig 1A, communication as well as the network architecture employing a hybrid fiber, twisted-pair architecture is shown*).

The combination of Gerszberg and Papadopoulos discloses all aspects of the claimed invention, except *at least one access device interconnectable between the pair of conductors and the at least one network communicative device*.

Art Unit: 2416

Furthermore, Wasaki is the same field of invention teaches at least one access device interconnectable between the pair of conductors and the at least one network communicative device(*page 4, a power line connecting part for connecting the communication channel and the power supply channel to the electrical equipment including the communication device and requiring electric power*).

The combination of Papadopoulos and Wasaki are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos to include the teaching of Wasaki because it is providing a power line communication system that makes it possible to perform communication between a plurality of communication devices by using an indoor power line, to avoid communication failures attributable to equipment connected to the indoor power line, and to improve the state of the indoor power line to make it suitable for communication.

Regarding **Claim 16**, Gerszberg discloses the pair of conductors has at least one end provided with a connector for connection with a like pair of conductors of the two-conductor based network(*column 1, a local house or feeder to a house network architecture using a hybrid optical fiber and twisted pair and/or coaxial cable connected multiplexing device*).

Regarding **Claim 17**, the combination of Gerszberg and Papadopoulos discloses all aspects of the claimed invention, except *the at least one network communicative device comprises multiple network communicative devices and the at least one access device comprises multiple access devices each interconnectable between the pair of conductors and a number of the network communicative devices.*

Furthermore, Wasaki is the same field of invention teaches the at least one network communicative device comprises multiple network communicative devices and the at least one access device comprises multiple access devices each interconnectable between the pair of conductors and a number of the network communicative devices(*page 4, a power line connecting part for connecting the communication channel and the power supply channel to the electrical equipment including the communication device and requiring electric power*).

Regarding **Claim 18**, the combination of Gerszberg and Papadopoulos discloses all aspects of the claimed invention, except *the at least one network communicative device comprises an application unit connectable to the access device, for performing an application.*

Furthermore, Wasaki is the same field of invention teaches the at least one network communicative device comprises an application unit connectable to the access device, for performing an application(*page 4, a power line connecting part for connecting the communication channel and the power supply channel to the electrical equipment including the communication device fro performing communication*).

Regarding **Claim 19**, Gerszberg discloses the network communicative device further comprises a controller for communication of data between the application unit and the two-conductor based network (*column 9, FIG. 2, a controller 100 which connected with a variety of network interface devices 110. The network interface devices 110 connected to a radio frequency (RF) audio/video interface 120 (e.g., a coaxial cable television connection to a set-top box/television or to a personal computer).*).

Regarding **Claim 20**, Gerszberg discloses the network communicative device further comprises a controller controlling operation of the application unit in response to control signals received on the two-conductor based network(*column 9, FIG. 2, a controller 100 which connected with a variety of network interface devices 110. The network interface devices 110 connected to a radio frequency (RF) audio/video interface 120 (e.g., a coaxial cable connection to a set-top box/television or to a personal computer).*).

Regarding **Claim 21**, Gerszberg discloses the at least one access device has a conversion functionality for conversion between communication protocols used by the network communicative device and over the two-conductor based network(*column 16, The processor 102 configured to perform various protocol conversion functions such that data having protocols used on a device connected to the premise distribution*

Art Unit: 2416

network may be efficiently transmitted to and from the FMPIC-FMP using an appropriate transmission protocol).

Regarding **Claim 23**, the combination of Gerszberg and Papadopoulos discloses all aspects of the claimed invention, except *the at least one network communicative device comprises a HomePNA device.*

Furthermore, Wasaki is the same field of invention teaches the at least one network communicative device comprises a HomePNA device(*page 4, a power line connecting part for connecting the communication channel and the power supply channel to the electrical equipment including the communication device(HomePNA device)*)).

Regarding **Claim 24**, the combination of Gerszberg and Papadopoulos discloses all aspects of the claimed invention, except *the at least one network communicative device comprises a power line communication compliant device.*

Furthermore, Wasaki is the same field of invention teaches the at least one network communicative device comprises a power line communication compliant device(*page 4, a power line connecting part for connecting the communication channel and the power supply channel to the electrical equipment including the communication device and requiring electric power*)).

Art Unit: 2416

9. **Claims 15** is rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papadopoulos et al (US 5544243, Aug. 6, 1996), and Wasaki et al. (US 20030095036, May 22, 2003) furthermore Jr. et al. (US 6400281, Jun. 4, 2002)

Regarding **Claim 15**, the combination of Papadopoulos and Wasaki discloses all aspects of the claimed invention, except *the harsh environment comprises train vehicles.*

Furthermore, Darby is the same field of invention teaches the harsh environment comprises train vehicles(*column 13, the communication system will be operating in a harsh and changing RF environment, it is expected that nodes will occasionally be inoperable, that RF signals will receive considerable interference and noise causing multipath effects, cancellation and simple destruction of packets, and that the trains using the communications system will operate in locations in which RF communications are degraded such as tunnels, a successful communications system which provides the reliability and latency needed for train operations must accommodate such outages and adverse effects*).

The combination of Wasaki and Darby are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos and Wasaki to include the teaching of Darby because it is providing a communication system with a logical

Art Unit: 2416

address which corresponds (roughly) with the physical order of the nodes in the network, such information can be provided to the network via the operator interface in the form of a manifest which identifies the railcars in the network and their location within the network.

10. **Claims 22** is rejected under 35 U.S.C 103(a) as being unpatentable over Gerszberg et al (US 6546016, Apr. 8, 2003) in view of Papdopoulos et al (US 5544243, Aug. 6, 1996), and Wasaki et al. (US 20030095036, May 22, 2003) furthermore Jr. et al. (US 6400281, Jun. 4, 2002)

Regarding **Claim 22**, the combination of Papadopoulos and Wasaki discloses all aspects of the claimed invention, except *the at least one access device has a switching functionality for communication between the network communicative device and additional network communicative devices connected to the at least one access device.*

Furthermore, Darby is the same field of invention teaches the at least one access device has a switching functionality for communication between the network communicative device and additional network communicative devices connected to the at least one access device(*column 6, The WUs(access device) communicate with various track resources, such as switches, train presence detectors, broken rail detectors, hot box detectors, signals, etc, a WU a part of and control a single device, such as a switch, or a control processor which communicates with and controls several devices (generally located near each other) such as a switch, train detectors on the*

Art Unit: 2416

track segments associated with the switch and signal apparatus associated with the switch).

The combination of Wasaki and Darby are analogous art because they are from the same field of endeavor of access to a service device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gerszberg and Papadopoulos and Wasaki to include the teaching of Darby because it is providing a communication system with a logical address which corresponds (roughly) with the physical order of the nodes in the network, such information can be provided to the network via the operator interface in the form of a manifest which identifies the railcars in the network and their location within the network.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

Milbrandt et al. (US 6631120, Oct. 7, 2003) teaches SYSTEM AND METHOD FOR DETERMINING A COMMUNICATION PROTOCOL OF A COMMUNICATION DEVICE OPERATING ON DIGITAL SUBSCRIBER LINES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IQBAL ZAIDI whose telephone number is (571)270-3897. The examiner can normally be reached on 7:30a.m to 5:00p.m.

Art Unit: 2416

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NGO RICKY can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2416

iz

Application/Control Number: 10/585,270
Art Unit: 2416

Page 23